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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,275	12/29/2005	Zsolt Hegmegi	38257	3721

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EXAMINER	
SOUW, BERNARD E	

ART UNIT	PAPER NUMBER
2881	

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/535,275	HEGMEGI, ZSOLT	
	Examiner	Art Unit	
	Bernard E. Souw	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Transmittal 5/17/2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☒ Claim(s) *1 and 7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 May 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/17/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 371 (PCT/SE2003/001803), which papers have been placed of record in the file.

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119 (a)-(d). The certified copy of Application No. 0203469.2 filed on 11/22/2002 in Sweden has been received and placed of record in the file.

Information Disclosure Statement

3. Receipt is acknowledged of information disclosure statement (IDS) submitted on 05/17/2005. The submission is in compliance with the provisions of 37 CFR 1.97.

A signed copy of the information disclosure statement is here enclosed.

Preliminary Amendment

4. The Preliminary Amendment filed 05/17/2005 has been entered.

The specification has been amended.

Dependent claims 6, 7, 9 and 10 have been amended.

The present Office Action is made with all the suggested amendments being fully considered.

Pending in this Office Action are claims 1-10.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

6. Claim 1 is objected to because of the following informalities: In line 8, the flow regulator label numbers (2,40) should correctly read (2,41). Appropriate correction is required.

7. Claim 7 is objected to because of the following informalities: In line 3, the word "*value*" is not understandable to one of ordinary skill in the art, since a "*value*" cannot possibly be "*closed*" or "*opened*", as recited in the claim. It is obviously a misprint that should correctly read "*valve*".

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-4, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuennen et al. (USPAT 5,853,572), hereinafter Kuennen'572, in view of Latel et al. (USPAT 4,825,083), hereinafter Latel'083.

► Regarding claim 1-3, Kuennen'572 discloses in Figs. 1, 2, 5 and 6 a system for supplying liquid comprising a tapping point (faucet outlet 14) shown in Fig.1, *connected to the outlet of the double hoses (16))* for drawing off liquid from the system, a liquid pipe (16) that connects the tapping point (14), *i.e., through ports (101) and (104) of unit (52) shown in Figs. 16, 17 and 18*, with a flow regulator (222) shown in Figs. 8 and 18, which in an active mode passes liquid from a liquid source (14) through the pipe (16) *and filter unit (85) shown in Fig.2* to the tapping point (15) and in an inactive mode prevents the flow of liquid through the liquid pipe *(outlet part of (16) through input (101) and output (104) of)* a liquid purifier (52), which is connected to the liquid pipe (16) between the tapping point (15) and the flow regulator (222), *i.e., as shown in Fig.8 by purifier unit (52), more clearly shown in Fig.13, with input port (101) and output port*

(104), which *(i.e., unit 52)* comprises an electrical UV light source (21) shown in Fig.13, and means *(logic circuit outputs A, B, shown in Figs. 16, 17 and 18)* for automatically lighting up the UV light source (21) when the flow regulator (222) is activated for passing liquid through the liquid pipe (16) and the tapping point (15) *through ports (101) and (104) of purifier unit (52)*, as recited in Col.3/ll.66-67; Col.4/ll.1-12 + 20-32; Col.5/ll.6-10; Col.7/ll.40-46 and Col.10/ll.27-44; characterized in that the flow regulator (222) is controlled electrically and is connected to a voltage source (151) shown in Fig.16 via an electrical supply lead *(unlabeled, but inclusive in numerals 170 and 176, including logic circuit outputs A and B, shown in Fig.17),* as recited in Col.11/ll.6-19 + 27-35; Col.12/ll.33-45+50-64.

It is understood that Kuennen'572's includes more parts not recited by Applicant *(which are represented above by the words printed in italics)*. However, Applicant's claim language does not exclude those parts. Furthermore, those parts that are not needed may be simply omitted. Such omissions are permissible, since omission of an element and/or its function is obvious if the function of the element is not desired/required/intended. *Ex Parte Wu*, USPQ 2031 (Bd. Pat. App. & Inter. 1989). It is generally also understood, that one of ordinary skill in the art would be able to omit those parts that are deemed unneeded, or undesired, just by using routine skill in the art, without affecting the general operational capability of the device.

However, Kuennen'572 does not teach that the means for automatically lighting up the UV light source (21) *(shown in Figs. 17 and 18)* is arranged to detect a supply

current that passes through the supply lead when the flow regulator is activated and to light up the UV light source when the supply current passes through the supply lead.

Latel'083 teaches a means to detect a supply current that passes through the supply lead when the flow regulator is activated and to light up the UV light source when the supply current passes through the supply lead, as expressly recited in Col.5/ll.48-59.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuennen'572's means of controlling/breaking the supply current to the flow regulator when the light source is defective or not properly functioning, by Latel'083's teaching of detecting the supply current that passes through the supply lead when the flow regulator is activated and to light up the UV light source only in case when supply current passes through the supply lead of the flow regulator, as expressly recited by Latel'083 in Col.5/ll.48-59, since it is undesirable to let the liquid unpurified in case of a malfunction of the UV light source.

One of ordinary skill in the art would have been motivated to modify Kuennen'572's means of shutting off the flow regulator by Latel'083's means of lighting up the UV source only when the flow regulator is functioning, since the UV light source in most liquid purifying systems is not visible from outside due to a completely closed design of the liquid vessel. In such a case it would be difficult to determine, whether it is the detector or the light source, which is malfunctioning. Consequently, it would be easier to adopt Latel'083's means by lighting up the UV lamp(s) only if there is liquid flowing through the regulator.

► Regarding claim 2, Kuennen'572's means of automatically lighting up the UV light source comprises an electronic control circuit shown in Fig.17 which is connected to one of the flow regulator's electrical supply leads 228 or 223 shown in Fig.18, as recited in Col.13/ll.9-14 regarding supply lead 223, and in Col.13/ll.29-40 in further reference to Fig.16. As shown in Fig.18, Kuennen'572's electronic control circuit shown in Fig.17 is further connected to a microprocessor (220) and is arranged to send an operating signal when the flow regulator (222) is activated (logic output A or B), whereupon a supply current passes through the supply lead of the flow regulator and the microprocessor is arranged to detect the operating signal and light up the UV light source by connecting the UV light source to the voltage source when the control circuit sends the operating signal, as taught by Latel'083 in Col.5/ll.48-59.

► Regarding claim 3, Kuennen'572's as modified by Latel'083's breaks the supply current to Latel'083's flow regulator as a result of an order signal from Kuennen'572's microprocessor, as previously applied to the rejection of claim 1.

► Regarding claim 4, although a so-called high side driver (HSD) is recited in Applicant in the disclosure, i.e., on pg.5/ll.18-24, the description is not technical but only superficial regarding its general function, without any technical detail. Such a function is already inclusive Kuennen'572's as modified by Latel'083's, which has been already applied in the previous rejections of claims 1, 2 and 3 above. While reciting only its general function, Applicant fails to disclose that Applicant's HSD solves any stated problem, or has any particular purpose, and it appears that the invention would perform equally well with Kuennen'572's electronic control circuit with microprocessor 220

shown in Fig. 16, 17 and 18. Therefore, it would have been obvious that Applicant's use of HSD is a mere matter of design choice that is unpatentable, because it only involves routine skill in the art.

► Regarding claim 7, Kuennen'572's flow regulator consists of an electrically-controlled valve (222) shown in Fig.18 (*which is the same as flow switch, as a valve has the same function as a switch*) which comprises an electrical control device (220), with the valve normally being closed and being opened when the control device is activated by passing a supply current through the control device's electrical supply leads (A,B) shown in Fig.18, as recited in Col.12/ll.33-43 and ll.50-69.

► Regarding claim 9, Kuennen'572's flow regulator 222 and the UV light source 21 are connected to one and the same voltage source (into which a connector 151 in Fig.16 is plugged in), as one of ordinary skill in the art may easily discern from Figs.16, 17 and 18.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuennen'572 in view of Latel'083, and further in view of Markham (USPAT 5,401,394) or Forrat (USPAT 4,438,337) or Bender (USPAT 6,200,466) or Bender (USPAT 6,117,335).

Kuennen'572 as modified by Latel'083 shows all the limitations of claim 5, as previously applied to the parent claim 1. In particular, the limitations claim 5 are readily obvious over Kuennen'572's description regarding a (Zenner or Zener) diode 192 shown in Fig.17, as recited in Col.12/ll.33-49.

As a matter of fact, the use of a Zener diode for monitoring the operational status of a UV lamp in a fluid sterilization device is conventional and also well-known in the art, as taught by Markham (USPAT 5,401,394) as recited in the Abstract/ll.1-5; by Forrat (USPAT 4,438,337) as recited in Col.2/ll.42-61; by Bender (USPAT 6,200,466) as recited in Col.5/ll.54-59; and by Bender (USPAT 6,117,335) as recited in Col.5/ll.48-53.

12. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuennen'572 in view of Latel'083, and further in view of Mahmud (USPAT 5,024,766).

Kuennen'572 as modified by Latel'083 shows all the limitations of claim 6, as previously applied to the parent claim 1, except the recitation of a pump switch controlling a flow regulator.

Mahmud discloses a water-purifying device similar to Kuennen'572's and Latel'083's. However, instead of tapping water from the city water as in Kuennen'572's and Latel'083's, Mahmud's prior art shown in Fig.1 uses a pump 22 for pumping water into the purifying system, as recited in Col.2/ll.20-28. Mahmud's invention shown in block diagram of Fig.3 also uses a pump 101A for pumping water into the purifying system, as recited in Col.5/ll.58-66. As shown in Figs.5A-I, more particularly in Fig.5G, Mahmud's invention uses a pump switch 309 to turn the pump on, as recited in Col.14/ll.4-19.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuennen'572's and Latel'083's system that uses water from the city water by Mahmud's teaching of using a pump to suck water from an

auxiliary water reservoir, since this pumping method is more universal and applicable to city water as well.

One of ordinary skill in the art would have been motivated to use Mahmud's pumping system to obtain water for the system, in order not to depend on an over pressure within the city water line.

► Regarding claim 8, Mahmud's system uses a pressure sensor 164 arranged in the liquid pipe 163, as recited in Col.7/ll.22-29 and 31-38. Mahmud's pressure sensor 164 is connected to the pump switch 309 over electrical control unit 150, as shown in Fig.5G, so that the flow regulator is activated when the pressure in the liquid pipe 163 is less than a predetermined level, as recited in Col.14/ll.4-19, Col.15/ll.5-14 and Col.18/ll.6-14.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuennen'572 in view of Latel'083, and further in view of Dimitrik (USPAT 3,844,741).

Kuennen'572 as modified by Latel'083 shows all the limitations of claim 6, as previously applied to the parent claim 1, including the recitation of using a battery 198 as voltage source, which is shown in Fig.17 and recited in Col.12/ll.43-44 and 58-60. However, Kuennen'572 as modified by Latel'083 does not expressly recite the battery is a 12 V DC voltage source.

As a matter of fact, use of a 12 V DC battery as voltage source is conventional and also well-known in the art, as taught by Dimitrik in Col.3/ll.39-41 and shown in Fig.4

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuennen'572's and Latel'083's system by using a 12 V DC battery as taught by Dimitrik, since such a battery is a compact voltage source.

One of ordinary skill in the art would have been motivated to use Dimitirk's compact voltage source, in order to make Kuennen'572's and Latel'083's water purifying system also portable.

Communications

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard E Souw whose telephone number is 571 272 2482. The examiner can normally be reached on Monday thru Friday, 9:00 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571 272 2477. The central fax phone number for the organization where this application or proceeding is assigned is 571 273 8300 for regular communications as well as for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571 272 5993.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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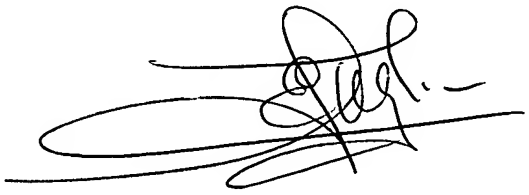

Bernard E. Souw, Ph.D.

Patent Examiner – AU 2881

June 02, 2006